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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.              | CONFIRMATION NO. |
|---|-------------|----------------------|----------------------------------|------------------|
| 09/920,900  | 08/02/2001  | Yoanna Baumgartner   | YOR920000535US2                  | 9854             |
| 7590 10/14/2005<br>Ryan, Mason & Lewis, LLP<br>Suite 205<br>1300 Post Road<br>Fairfield, CT 06430 |             |                      | EXAMINER<br>OPSASNICK, MICHAEL N |                  |
|   |             |                      | ART UNIT<br>2655                 | PAPER NUMBER     |

DATE MAILED: 10/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/920,900

Applicant(s)

BAUMGARTNER ET AL.

Examiner

Michael N. Opsasnick

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 July 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11, 16-24, 26-28, 33 and 39-44 is/are rejected.
- 7) ☒ Claim(s) 12-15, 25, 29-32 and 34-38 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Allowable Subject Matter*

1. Claims 12-15,25,29-32,34-38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### *Claim Rejections - 35 USC § 102*

2. With respect to prior art related examination, examiner notes that applicant has equated the word “kernel” with a function which includes gaussian (found on page 11, lines 15-20 of applicant’s specification), and an “atom” function is an index that corresponds to the mean and variance of a closeness measure corresponding to speech recognition (found on page 12, line 18 – page 13, line 6 of applicant’s specification).
3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
4. Claims 1-11,16-24,26-28,33,39-44 are rejected under 35 U.S.C. 102(b) as being anticipated by Moshier (4489435).

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As per claims 1,22, Moshier (4489435) teaches a speech label accelerator (as detecting and labeling input speech -- col. 5 lines 4-16) comprising:

“an indirect memory....atom functions.....atom value memory” as dedicated memory for word duration, phoneme duration, pattern score memory, and score register (Fig. 10);

“wherein.....kernel functions” as pattern score memory (Fig. 10, subblock 328) using word duration and phoneme duration as “atom” values when performing pattern comparison (col. 17 lines 42-60), while using a Gaussian (or Laplacian) to calculate s’ (col. 17 lines 4-36);

“adder circuitry.....indirect memory” as adding result to the accumulator (col. 17 lines 58-66).

As per claim 2, Moshier (4489435) teaches a domain of  $ik$  (col. 17 line 45-50 → equation 19).

As per claims 3-6, 9,10, Moshier (4489435) teaches multiple pipeline and adder structures (Figs. 6 & 10).

As per claim 7, Moshier (4489435) teaches an accumulator to the adder (col. 17 lines 35-50).

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As per claim 8, Moshier (4489435) teaches accumulator likelihood stats (Fig. 3; col. 17 lines 55-60; col. 18 lines 20-26).

As per claim 11, Moshier (4489435) teaches performing on the atom vectors s,x,u in vector (parallel) form (col. 18 lines 17-55).

As per claims 16-20, Moshier (4489435) teaches atom and kernel functions to be both separable and partially separable, in Gaussian and Laplacian form (col. 17 lines 3-15).

As per claim 21, Moshier (4489435) teaches compound Gaussian → see col. 17, equation 19.

Claims 23,24,26-28,33, and 39-44 are method claims describing the similar process as used in the apparatus claims 1-11,16-22 as noted above, are therefore similar in scope and content and rejected under the same rationale used to reject claims 1-11, and 16-22 as noted above.

### ***Response to Arguments***

5. Applicant's arguments filed 7/20/2005 have been fully considered but they are not persuasive. As per applicant's arguments that Moshier addresses a different problem, examiner argues that although Moshier may be addressing a different problem, the issue at hand is the scope of the claim language; and the claim language does not necessarily cover observation

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likelihoods (as per arguments on the bottom of page 14 to the top of page 15). As per applicant's arguments that Moshier does not teach indirect memory, examiner argues that Moshier teaches memory banks (Fig. 10, subs 322,324) and also the memory for word duration and phoneme duration (Fig. 10, sub 328), wherein one bank can be construed as the main memory, and the other as indirect memory, or both banks can be construed as indirect memory. Examiner also notes that on pp 15-16, applicant's representative does state what the claim scope covers and what Moshier does not disclose; however, applicant's representative does not show the difference between the two (Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references).

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Opsasnick, telephone number (571)272-7623, who is available Tuesday-Thursday, 9am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Wayne Young, can be reached at (571)272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mno  
10/11/05



W. F. YOUNG  
PRIMARY EXAMINER